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ABSTRACT

A study examined the clinical influences on the instructional planning decisions made by registered nurses who are lecturers in basic nursing at colleges of advanced education (CAEs) in New South Wales, Australia. Data were collected from a questionnaire that was completed by 98 nurse-academics from 12 of New South Wales' 15 CAEs offering basic nursing courses and from interviews of 14 nurse-academics from 4 of the 15 CAEs that were selected as being representative of CAEs offering basic nursing in New South Wales. The nurse-academics were asked about the factors influencing their instructional planning decisions. Statistical analyses were performed to determine the significance and identify trends. The following factors were identified as the main influences on selection of a system of supervision: type of nursing; geographical placement of students in the hospital; students' level; and number of students in the lecturers' charge. Lecturers did much less advance planning for clinical teaching in clinical facilities than for lectures, tutorials, or nursing laboratories. Seven of 11 nurse-academics interviewed mentioned wanting to produce "safe" nurses. Extrainstitutional clinical factors did not directly affect nurse-academic teaching in lectures and tutorials but did have a direct effect on teaching in the extrainstitutional clinical facilities themselves. (Contains 28 references.) (MN)

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Clinical Influences on Nurse-Academics' Instructional Planning Decisions in the Implementation of Basic Nursing Curricula in Colleges of Advanced Education in New South Wales

by

Kathryn L. (Kay) Roberts, R.N.,B.N.Sc., M.A., Ph.D.

Northern Territory University
Darwin N.T. Australia 1990

This study is dedicated to the nurse-educators of New South Wales who undertook to change nursing education by transferring nursing education programs to the tertiary education sector and in the process became nurse-academics,

and

to the nurses who instigated the movement of Australian nursing education to the tertiary sector and worked tirelessly to make it all possible,

and

to the individual nurse-academics who contributed their precious time to assist me in this work and without whom this study would not have been done.

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Abstract

This study shows the influences on instructional planning decisions of nurse-academics in colleges of advanced education (CAE's) in New South Wales. Questionnaires which comprised the Roberts Scales were administered to nurse academics in twelve C.A.E.'s in N.S.W. Fourteen nurse-academics in four C.A.E.'s were interviewed. The questionnaire data were analyzed using SPSS-X. Cross-tabulations, t-tests, cross-correlations and breakdown procedures were used to determine the significance of the results and identify trends in the data. Transcripts of the interviews were analyzed for significant themes. The major constraining influences of the clinical facilities were the physical characteristics of the clinical teaching environment and the system of care. The major facilitating influence was interpersonal relationships with nurse-clinicians. Facilitating factor theory is introduced. Recommendations are made for action by the Government and Heads of the nursing departments of C.A.E.'s in New South Wales.

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Chapter I
Introduction

1.1 Background to the Research

In 1983, the Minister for Health in New South Wales announced a major change for nursing education, namely the transfer of basic nursing education courses into the college of advanced education (C.A.E.) sector. In N.S.W., the rest of the C.A.E. programs began in 1985 and hospital-based basic nursing programs were phased out by 1988. Nursing education was to be funded mainly by State Government funds until the end of 1993 when the Federal Government was expected to assume the complete responsibility. The last hospital nursing intakes anywhere in Australia were to be in 1990. At the time of the study, 38 basic nursing courses in universities and C.A.E.'s had been registered with the Australian Council of Tertiary Awards (A.C.T.A.,1988:89). Additionally, fifteen institutions offered post-registration degree conversion courses, seven offered graduate diplomas in clinical nursing, six offered a master's degree and two offered a Ph.D. (A.C.T.A., 1988:89).

A period of development and expansion of tertiary nursing education programs began in 1984. Nursing brought 6,000 students and millions of dollars into the C.A.E.'s, which welcomed this expansion after a period of limited growth. The exact figures are not available for the amount of capital infused into the tertiary education sector by the N.S.W. government to finance the inception of nursing programs; however there have been 6500 students funded and the

however there have been 6500 students funded and the Commonwealth Government expected that $8000 per student would be expended in the form of capital development (personal communication with Department of Health and the Office of Higher Education). Thus, the transfer of nursing education into the tertiary sector would have initiated an injection of funds of approximately $50 million. This expenditure took the form of both money and 'assets in kind' such as space in hospitals reserved for the college students, and buildings such as office accommodation in nurses' residences. Additionally, the recurrent expenditure per year was of the order of $45 million. A State Planning Committee with representatives from Health and Education Ministries was set up to oversee the transfer and allocate the initial funds for development of the courses. The new nurse-academic positions were mostly filled by recruitment of nurse-teachers from hospital schools.

As the colleges began to plan for the introduction of nursing courses, each developed its own course curriculum. As Pilkington (1986:1) stated:

> *The introduction of basic nurse education within the college sector has allowed the deregulation of curricula. Each college has been able to design a curriculum in keeping with the philosophy of that college. While this has brought much freedom to nurse-academics in that they have been able to implement ideals and philosophies which have developed as a result of years of experience, it has also meant that issues have arisen which in many instances have not been envisaged.*

This study concerned the nurse-academics' decision-making concerning the clinical portion of the curriculum in the early stages of implementing the new college programs. It was part of a larger study for a doctoral degree (Roberts, 1989). It also concerned some issues which have arisen in the course of implementing the most significant change in nursing education in Australia in the last century.

1.2 Context of the Problem

The research problem concerned influences on nurse-academics' curriculum decision-making in the clinical facilities. For the purposes of this study, curriculum means a 'plan for providing sets of learning opportunities to achieve broad goals and related specific objectives for an identifiable population' (Saylor and Alexander, 1974:6). According to Bevis (1978:8) a nursing curriculum is:

> *the holistic manifestation of many composite parts and factors which together enable the achievement of nursing educational*

> *goals that have been carefully identified, selected, and articulated.*

All teachers make decisions about the curriculum. A decision is a 'choice made by persons for action' (Harrison, 1978:26). Decision-making is 'the making of reasoned choices from among several alternatives' (Cassidy and Kurfman, 1977:1). Curriculum decisions are influenced by constraints which define the teacher's 'room to move', or decision-making space (Bernstein, 1971:50; Smith, 1983:21).

1.3 Purposes of the Study

The main purposes of this study were:

a) To elucidate nurse-academics' perceptions of the effects of influences of the clinical facilities on their instructional planning decisions for clinical practice in the C.A.E. basic nursing education programs.

b) To test frame factor theory.

c) To expand frame factor theory to include facilitating as well as frame factors.

1.4 Frame Factor Theory

Frame factor theory may be used to explain the influences under which curriculum decisions are made. It is an explanatory level theory which suggests that teachers are constrained by frames or sets of factors that limit their decisions. Frame factor theory was originated in the 1970's by Bernstein (1971) and developed by Dahllöf (1971) and Kallós and Lundgren (1976,1979). Bernstein originated the idea of frame in pedagogy:

> *Frame refers to the specific pedagogical relationship of teacher and taught ... Frame refers to the strength of the boundary between what may be transmitted and what may not be transmitted ... Frame refers to the degree of control teacher and pupil possess over the selection, organization and pacing of the knowledge transmitted and received in the pedagogical relationship (Bernstein, 1971:50).*

1.5 Theory-generating Studies

The early theory-generating studies of Dahllöf (1971), Kallós and Lundgren (1976) were concerned with interactive decision-making. Dahllöf stated:

> *Frame factors have in common that they set certain time and space limits to that part of the educational process that takes place at the school (Dahllöf, 1971:75).*

He suggested that frames could be either fixed or able to be manipulated. He stated that the general, economic and cultural aspects of the environment were a fixed feature of the school system that could not be subject to change within reasonable time and could not be changed by the school authorities. The immediate background for teaching situations consisted of factors that were able to be manipulated or were under the control of the school system, or possibly the teacher, at least in principle. Thus, there were frames or broad areas of constraint, which were made up of individual components called frame factors.

Dahllöf (1971) studied ability grouping and content validity in secondary schools in Sweden in the 'sixties. He found that teachers' decisions were limited by frame factors or 'such characteristics of the environment in which the instruction is going to take place that are under direct control by the school authorities' (Dahllöf, 1971:75). Dahllöf found that there were physical frames, for example, the size and structure of school buildings. He also found that there were administrative frames, for example, length of school year and day, and ability grouping of students (Dahllöf,1971:75). Dahllöf (1978:33) suggested that the physical characteristics, administrative factors and teacher characteristics were within the frames able to be manipulated.

The model that Dahllöf developed included other frame factors such as total time at the disposal of the teacher, teacher utilization, access to teaching aids, localities, and location in the community. He distinguished these frame factors from general environmental factors, individual factors of teachers and pupils and curriculum process factors, for example time for teaching the content. According to Lundgren (1981:198), Dahllöf's extension of the concept of frame to factors outside the teacher and student's control links the macro, or societal, and micro, or school, levels of analysis.

Lundgren (1972) carried out a comprehensive study of pedagogical processes in academic high schools in Sweden by means of questionnaires and classroom observation. He found that the composition of the class clearly influenced the teaching process and that in each class there was a 'steering group' that set the pace of teaching and governed the amount of information the teacher could transmit Lundgren (1972:339).

Lundgren also noted that 'the teaching process is not only steered by the frames, but also limited by them' (Lundgren, 1972:13). He stated that Bernstein's original concept of frame was limited to

constraints on content, but that 'in a broader sense, the number of options as to the form of transaction, the methods devoted to a certain subject (or content unit) during a definable period ... could be regarded as limited, or framed' (Lundgren, 1981:198).

Kallós and Lundgren (1976:8) expanded the concept of frame. They introduced an organizational frame, referring to decisions about the composition and grouping of the class. They also introduced a personal frame, referring to the decisions about the assignment of a particular teacher to a particular group of students. They also stated that pedagogical decisions are 'constrained and to a certain degree also directed by the regulations imposed by and decisions made at other levels' (Kallós and Lundgren, 1976:6). They suggested that framing may be decided upon and introduced at various levels of the educational bureaucracy. They also suggested that fiscal decisions above the school level have considerable impact on teaching decisions. (Kallós and Lundgren, 1976:6). They introduced the notion of higher order and proximal frames (Kallós and Lundgren, 1976:22). Proximal frame factors 'define the space of options and form the immediate basis for the instructional planning by teachers' (Kallós and Lundgren, 1979:30). At the same time:

> *The concept of frame ... does not merely provide a tool for the description of actual decisions taken, nor does it only serve as a concept that can be used in order to describe what is actually stated in relation to curriculum, teaching, and the educational system. ... Framing denotes certain observable aspects of the educational system (Kallós and Lundgren, 1976:30).*

They stated that frames have 'constraining and directive' effects on pedagogical activities (Kallós and Lundgren, 1979:30).

1.6 Frame Strength and Size

The notion of frame strength was introduced by Bernstein (1971:50), who stated:

> *Frame refers to the strength of the boundary between what may be transmitted and what may not be transmitted, in the pedagogical relationship. Where framing is strong, there is a sharp boundary, where framing is weak, a blurred boundary between what may and may not be transmitted. Frame refers to the range of options available to teacher and taught in the control of what is transmitted and received in the context of the pedagogical relationship. Strong framing entails reduced options; weak framing entails a range of options.*

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The concept of frame 'concerns the mechanisms of decisions and control in the establishment of strong (or weak) ... framing' (Kallós and Lundgren, 1976:17). Frame strength has come to mean 'the degree to which a frame is perceived by a teacher as able to be changed' (Smith, 1984:242). In a study of seven primary and secondary school teachers, Smith (1984) investigated the influence of frames on teachers' curriculum decisions at the lesson planning level. He used an ethnographic methodology to study the influences and extended the concept of frame to include decision-making space.

The size of the frame is determined by the closeness of the boundary to the teacher. It is affected by two main factors: the number of curriculum decisions that a teacher believes have already been made by other persons or agencies and the number of potential choices available for each of the decisions to be made by the teacher (Smith, 1983:22). That is, the more decisions the teacher believes have already been made by others, and the fewer choices available for a given decision, the smaller will be the perceived frame size.

1.7 Decision-making Space

The notion of decision-making space was originated by Kallós and Lundgren (1979:32):

> *Frames define an operating space for planning and subsequent actions by teacher and students. The uses of that space are dependent upon the teacher's perception of the proximal frames, his ideas about teaching (which in their turn are to some extent shaped by the frames) and his knowledge of different courses of action.*

Frame factors and the operating space have been investigated by Smith (1984). Smith extended the concept of the fixity of frames or their ability to be manipulated to include the perceived decision-making space, i.e. the teacher's 'room to move'. The teacher's total curriculum decision-making space results from interaction of a number of individual frame spaces which represent:

> *the degree of freedom or restriction of a teacher's curriculum decision-making provided by the policies, decisions and behaviour of people external to the teacher, operating at a particular level, or in a particular context of the schooling system (Smith, 1984:239).*

The number of options can be limited by the perceptions of the decision-maker, and the total space is framed by a kind of minimum boundary (Maxwell, 1985:48).

The concept of perceived curriculum decision-making space extends the concept of frame by encompassing all curriculum decisions, emphasizing the nature of the space rather than the frame, suggesting factors responsible for size of frame and frame space, showing how the frame can be altered, and showing that frame or frame space depends entirely upon teachers' perceptions (Smith, 1984:237). Furthermore, each frame space is defined by a structural element of the schooling system, such as the organization of the school, which limits the teacher's curriculum decision-making space. The teacher's own perception of the frame may be more important than the objective size and strength of the frame (Smith, 1983:22). The predominance of the perception rather than the objective reality of the frame is supported by Cohen and Harrison (1982) in the findings of the Curriculum Action Project (CAP).

1.8 Facilitating Factor Theory

Although there had been a considerable amount of development of frame factor theory, it seemed to the researcher that constraints were only half of the story. It followed that there would also be factors that would facilitate the decision-making process. Earlier, Klein, Tye and Wright (1979) had suggested that there might be facilitators, but a thorough search of the literature revealed no research on this topic and no theoretical development. Therefore the author proposed to research facilitating factors and, if indicated, propose a facilitating factor theory.

1.9 Studies Concerning Pre-active Decision-making

A thorough search of the literature found no studies on nursing in which clinical influences on instructional planning were a major focus.

1.10 The Research Questions

The questions that this study attempted to answer concerning instructional planning decisions for the clinical component were:

a) What frames influence nurse-academics' instructional planning decisions?

b) What facilitators influence nurse-academics' instructional planning decisions?

c) What frame factors make up the frames?

d) What facilitating factors make up the facilitators?

e) What is the relative size, strength and importance of the frames?

f) What is the relative size, strength and importance of the facilitators?

g) What is the effect of the frames and facilitators on the nurse-academics' decision-making space?

1.11 Pilot Study

In the year before the main study data were collected, a pilot study was done in order to practise techniques and to trial questionnaires. Three tertiary institutions were included in the pilot study that were conveniently located, co-operative, and not targeted for the main study. One of the institutions was chosen because it was under the leadership of one of the members of the thesis committee and therefore could not have been used in the main study, for ethical reasons.

In the first semester, two institutions were visited for practice in methodological techniques such as interviewing and data recording. In the second semester, data were processed and analyzed and the third institution was visited to obtain further information. Questionnaires were developed and trialled. Reports were given to participating institutions.

Chapter II
Methodology

2.1 Design of the Study

In this study, elements of both quantitative and qualitative research methodologies were combined. Although there has been lengthy debate concerning the two paradigms in the literature, there has in recent times been more harmonious relations between proponents of the two conflicting views (Rist, 1977:47). Nolan and Short (1985:16) suggest 'the use of qualitative and quantitative modes of inquiry in tandem can lead to a more complete and comprehensive understanding of educational programs'. Mathison (1988:13) stated that 'it is necessary to use multiple methods and sources of data in the execution of a study in order to withstand critique by colleagues'. The main methods used in this study were interviewing and a questionnaire survey. The interview data were subjected to content analysis. According to Holsti (1969:28), all content data must be compared with some other data in order to state meaningful conclusions. In this study, the interview and questionnaire data were compared. Thus, multiple methods of data collection were used in order to increase the validity of the study by allowing the comparison of different types of data.

2.2 The Setting

At the time of the study, 15 tertiary institutions in N.S.W. were running basic nursing courses. Fourteen were in colleges of advanced education and one in a university. Four colleges were selected to participate in the study. In order to obtain a representative sample of tertiary institutions, two colleges from the Sydney metropolitan area, one regional metropolitan and one non-metropolitan college were selected for the interview phase of the study. Two colleges were selected from the Sydney metropolitan group as it had approximately twice as many students as the non-Sydney metropolitan group. The Sydney metropolitan colleges comprised one large (>300 students) and one small (<300 students) college in order to represent both sizes of college. The regional metropolitan college was large and the non-metropolitan college was small. Thus the sample had two large and two small colleges in it. The colleges are called 'A', 'B', 'C', and 'D' in this report to enhance anonymity. The one university at the time of the data collection was excluded from the sample to promote homogeneity and because it had already been used in the pilot study. Since the sample selected did not include any universities, the institutions are referred to as colleges. Letters were sent to selected institutions requesting permission for the researcher to conduct the study. All four colleges granted approval. Twelve colleges took part in the questionnaire phase of the study (the other three had been used in the pilot study).

2.3 Subjects

The subjects for both the interview and questionnaire phases of the study were registered nurses who were lecturers in the basic nursing course in tertiary education institutions in New South Wales in 1987. In order to select subjects for interviews, lists of staff were obtained and possible interview subjects identified who met the criteria for the study explained below. In one college, the Head selected the participants, who were then requested to volunteer. In two other colleges, the Head called a meeting for the researcher to request volunteers. Some subjects were obtained in this way, with the remainder being approached directly by the researcher. In the fourth college, the researcher selected possible subjects from a list. She decided that of those who met the criteria, those who were in their office on the first visit would be approached to participate in the study until the required sample was obtained. All lecturers approached agreed to participate. The choosing of three subjects by the Head raised the issue of the subjects' freedom of choice to participate and thus generated a possible bias in the data.

However, the candid nature of their responses indicated that they were hardly afraid of the Head. The researcher explained to each subject the purposes and usefulness of the research and the subject's expected commitment. The context of the research and the researcher's independence of the system were also explained. The researcher and the subjects negotiated the times for interviews and observation of instruction. The Heads were not involved in dealings between the researcher and subjects beyond the point of subject selection.

In order to select subjects for questionnaire administration, each institution (n=12) was approached for a list of nurse-academics who had been employed there for at least a year. All institutions provided such a list. The survey sample comprised nurse-academics in all sections of the nursing department.

2.4 Number of Subjects and Subject Department

The questionnaire sample comprised 98 nurse-academics from 12 colleges. The interview sample comprised 14 nurse-academics at the lecturer level in the four colleges. Three of the four colleges had nursing departments divided into sections such as Nursing Studies, Nursing Science, Behavioural Science, Life Science, Health and Professional Nursing Studies. The interview subjects were limited to the Nursing Studies and Health sections to promote homogeneity. The lecturers from the Nursing Science or Science sections that existed in two of the colleges were excluded, as were those from the Professional Nursing Studies section, who mainly taught post-basic courses. Lecturers in Nursing Science might have had different perceptions from those in Nursing Studies as people who teach in a Science section may value science more than those who teach in a Nursing Studies section. Restricting the sample also limited the subjects to a manageable number. To have included the Nursing Science sections would have meant interviewing more lecturers or splitting the sample. The former was beyond the resources of the study, while the latter would have resulted in undesirably small numbers for each group. Therefore the subjects were restricted to Nursing Studies and Health. A sample of a quarter of the population for the larger and medium sized colleges and one-third for the smaller colleges was decided upon. Thus, a total sample of 14 was selected, comprising three from each of the small colleges and 4 from each of the larger colleges. The questionnaire sample comprised 57% from large colleges and 43% from small colleges.

Analysis of the questionnaire data for this study showed that males made up 28% of the sample and females made up 72%. In each college, one male lecturer was included in the interview sample, which meant that males comprised a quarter of the sample in the larger

colleges, one-third of the sample in the smaller colleges and 28% of the whole sample. It was considered preferable to have the males from the smaller colleges included, even if they were slightly over-represented, so that the male point of view could be included for every college visited. Therefore, the sample comprised ten female and four male nurse-academics. Lecturers interviewed are referred to as (s)he throughout this document in order to camouflage their gender.

The survey sample comprised 80% of subjects from nursing departments and 20% from science departments. Subjects taught a variety of nursing and science subjects; no attempt was made to standardize for subject matter taught.

The 14 subjects selected for interview had at least five years' teaching experience. They had been involved in teaching nursing in hospital schools of nursing for at least one year. They had also taught in the college in which they were presently employed for at least a year. The criterion of one year's teaching experience in the college in which the lecturer was currently working was set in order to ensure that the subjects would be familiar with the institution. The subjects selected for questionnaire data collection were those with one year's employment in the institution. All nurse-academics who met that criterion were included regardless of the length of their teaching experience.

2.5 Development of the Questionnaires and Roberts Scales

During the pilot study, the researcher developed a questionnaire investigating Extra-institutional Influences on instructional planning decisions, which included the influence of the clinical facilities. The questionnaire used a Likert Scale format with subjects asked to rate the items as to whether the latter were constraints or factors facilitating their instructional planning decisions. Each scale contained items derived from the pilot study data. The items were grouped into conceptually related clusters which will henceforth be referred to as the Roberts Scales.

In order to establish face validity, the questionnaire was vetted by four prominent nurse educators who were Heads of nursing departments not in the colleges visited in the main study. The questionnaire was sent for trialling to 42 nurse lecturers in the three institutions involved in the pilot study. The trial questionnaire return rate exceeded 50 per cent (n=22). The trial questionnaire data were processed on the Macquarie University VAX computer, using the SPSSX package (SPSSX Inc., 1986).

The trial data scales were refined by eliminating any item with a corrected item-total correlation of less than +/- 0.3. The refined scales

were tested for internal consistency using the SPSSX procedure 'RELIABILITY' to generate the Cronbach's alpha coefficient. A criterion of 0.70 on the alpha coefficient was set for inclusion of scales in the questionnaire. When the items were finalized, they were randomized on the questionnaires through shaking dice with the appropriate large numbers on them. Randomization was judged necessary to prevent subjects developing a mental set to a group of conceptually related items. The questionnaire was scored on a 5 point Likert scale format, with a score of 1 meaning 'strongly constrains'; 2, 'constrains'; 3, 'neither constrains nor facilitates'; 4, 'facilitates'; and 5, 'strongly facilitates'.

An analysis of internal consistency was carried out on the questionnaire data from the main study. Items that had a corrected item-total correlation of less than +/- 0.3 were omitted from the scales. Re-combination of the pilot scales was carried out in order to construct scales with sufficient items to be useful for further analysis. A level of confidence of 95% ($p \leq 0.05$) was set for the questionnaire data.

2.6 Collection of Data

The researcher interviewed the 14 subjects about what influences they perceived were operating on their instructional planning decisions for the clinical component of the unit they were giving during the first semester of 1987. In order to capture current data, lecturers were interviewed about their current planning. As the nursing system was still in a state of settling in to the tertiary system, all lecturers were involved in planning instruction. Because the researcher was using frame factor theory as a theoretical framework, and because of the limited time available with each subject, the interviews in the first phase of data collection (1987) concentrated on frame factors and did not explore facilitating factors.

Before the interview, each subject was asked to complete a questionnaire. An interview schedule was then developed, using the items that the subject had identified as most constraining. The subject was then given a semi-structured interview about his/her perceptions of the constraints of the frames as they affected instructional planning decisions. To avoid confining the interview to what was on the questionnaire, the subjects were asked if there were any other influences. With the permission of the subjects, audiotapes of the interviews were made using a portable tape recorder with a sensitive microphone.

After the first analysis of the interview data, it was considered that, because of the exploratory nature of the study, the data collected ranged over a great number of areas, but lacked some depth. It was

decided that more in-depth data concerning the most important influences would add to the emerging picture of influences on nurse-academics' instructional planning decisions. The questionnaire data provided information on both frame and facilitating factors, while the interview data mainly provided information on frame factors. The later (1988) data comprised nurse-academics' perceptions of the effects of the most important influences, both constraining and facilitating, on their instructional planning decisions. Therefore, the 11 subjects who were still working in the N.S.W. college system were approached for their permission to give another interview. All subjects agreed, and all were interviewed again in the second semester of 1988. Subjects were not asked to recall influences at the time of previous data collection, as the data could have been less valid owing to diminished recall over elapsed time. Instead, they were asked to comment concerning influences at the time of the follow-up data collection.

In addition, the researcher accompanied 13 out of the 14 lecturers in the clinical situation for an average of four hours each. One lecturer refused the researcher permission.

2.7 Administration of Questionnaires

In 12 colleges across N.S.W., 120 questionnaires were administered to selected nurse-academics. To control for historical factors, the questionnaires were administered to the mail sample at the same time as interviews related to that questionnaire were being conducted in the colleges visited. The questionnaire was accompanied by a personalized letter explaining the purpose of the study and requesting help, a stamped, self-addressed envelope and a stamped self-addressed postcard. The postcard contained the subject's name and a message that the subject had posted the questionnaire. It was to be posted at the time of posting the questionnaire to notify the researcher as to who had returned the questionnaire. This made it possible to preserve the respondents' anonymity and eliminate respondents from the follow-up list, thus sparing the time and expense of a full round of follow-up questionnaires. Subjects not responding to the first questionnaire were sent a follow-up questionnaire with another personalized letter, questionnaire and stamped, self-addressed envelope. A minor alteration in the format of the title page of the follow-up questionnaire enabled the researcher to distinguish first time respondents from the follow-up group so that the two groups could be tested for significant differences on scores on the Roberts Scales. The follow-up respondents comprised approximately 10% of the sample and their responses to the Roberts Scales were not significantly different from those of the other

respondents, as measured by a t-test. The overall response rate was 82% and therefore sufficient to suggest external validity.

The nature of the methods used in this study meant that for some topics, only questionnaire or interview data were elicited. In some cases there were interview data only, because the interview ranged beyond the topics on the questionnaire. In other cases, there were questionnaire data only because the interview covered a more restricted range of topics than the questionnaire.

2.8 Data Processing, Ana'ysis and Presentation

The audiotapes of the interviews were transcribed by the researcher into the Apple Macintosh computer, using the 'Write Now' word processor and a dictaphone. All possible precautions were taken to ensure an accurate transcription.

From the word processor file, the researcher next generated hard copy, in terms of a 'reconstructed interview' (Smith, 1984:157) that omitted such items as superfluous conversation or references, lengthy anecdotes, repetition, and questions from the researcher that interrupted the flow of the dialogue. The data from the second round of interviews were processed in the same manner as the previous interviews.

Following the transcription, summaries were sent to all subjects with a form to indicate if the summary was accurate and to give an opportunity for the subjects to change their statements. Only a few minor changes were noted. Smith (1984:76) also found only a few minor changes were requested. It is possible that after several months the subjects' memory of the interviews would be dimmed slightly, but they would probably seek to change anything that conflicted with their views. In view of the lack of change in the first set of interview summaries, no summaries were sent for the data from the second round of interviews.

The content of the transcripts was then analysed, using thematic categories. The transcript was broken into units which roughly corresponded to the interviewee's thought on a subject. Units were identified and then sorted on the hard copy using highlighters of different colours. Subject matter categories were used that corresponded to the influences derived earlier, for example 'interpersonal relationships'. The categories reflected the purpose of the research, were exhaustive, independent and mutually exclusive (Holsti, 1969:95). Units were coded according to college, lecturer, and page number so that they could be traced back to the original transcript and thence the audiotape. Sorted units were then recombined into major categories that corresponded to major influences. Further

sorting then produced themes. When the data were completely sorted, hard copy was generated. The researcher then analysed the data and noted the trends and the number of subjects who reported particular influences on their instructional planning decisions.

To preserve their anonymity, the 14 lecturers interviewed are referred to in this report by a randomly selected code number. The parentheses after each quotation contain the lecturer's number, tape recording number and page number of the transcript, for example (1/05/10) would indicate the unit came from lecturer 1, tape number 5 and the tenth page of the transcript.

The lecturers interviewed are referred to as 'lecturers'. To illuminate the results, relevant quotations are presented that are typical of the opinions of the lecturers. Where the data showed a single strong majority of opinion, a single quotation reflecting that opinion was used. Where there was a significant minority opinion (i.e. more than a third of subjects), a quotation reflective of that opinion is presented as well. In the interests of conciseness, only results that reflect the opinions of three or more lecturers are discussed.

The data from the questionnaires were typed into the Macquarie University VAX computer, and processed by means of the SPSSX package (SPSS Inc.:1986). The data from the questionnaires were in effect self-coded by the respondents, so required no further coding. The final values of Cronbach's alpha were established on the Roberts Scales, as earlier described. Descriptive data were generated using the procedures 'CONDESCRIPTIVE', 'FREQUENCIES' and 'BREAKDOWN'.

In order to ascertain the homogeneity of the sample, the survey data, which included the respondent's sex, interview status and whether it was an initial repsonse or a follow-up, were submitted to independent groups t-tests in order to test the following hypotheses:

a) There was no difference between the male and female subjects' scores on the Roberts Scales.

b) There was no difference between interviewees and other nurse academics' scores on the Roberts Scales.

c) There was no difference between the scores on the Roberts Scales of nurse-academics in the colleges that were and were not visited by the researcher.

The groups tested were homogeneous on over half of these scales. There was no significant difference on the Roberts Scales of male and female lecturers on most scales; however on the 'Characteristics of the

Clinical Facilities' scale, the interviewees perceived themselves as less constrained than those not interviewed ($p \leq 0.01$), while subjects from colleges not visited perceived themselves as more constrained than those from colleges visited ($p \leq 0.02$).

Because of the lack of difference on most scales, the data for all subjects are reported together in the results section rather than separated according to the above groupings.

The questionnaire data were compiled into histograms using a graph-generating procedure on the Apple Macintosh Plus computer. To show the data on a histogram, it was necessary to group the scores into equal intervals (Burroughs, 1971:155). As the responses were in five categories (1,2,3,4 and 5), representing 40 decimal intervals, the scores were divided into categories that represented five equal intervals of 0.8. The data were accordingly recoded so that a mean score of 1.0 to less than 1.8 was classified as 'strongly constrains'; 1.8 to less than 2.6 was 'constrains'; 2.6 to less than 3.4 was 'neutral'; 3.4 to less than 4.2 was 'facilitates'; and 4.2 to 5.0 was 'strongly facilitates'. This recoding counteracted the tendency for subjects to choose the middle scores and was applied to all histograms and tables in the results section. Data analysis showed that very few subjects' scores were in the extreme zones; therefore these categories were subsequently combined with 'constrains' and 'facilitates' to produce a 'constrains' zone from 1.0 to less than 2.6 and a 'facilitates' zone from 3.4 to 5.0, with the neutral zone unchanged.

Only those topics in which a majority or a significant minority (1/3 to 1/2 of respondents) were constrained or facilitated are discussed in detail in the text. This decision was made to prevent the main findings from being obscured by unnecessary detail. 'Most' is used to refer to over 66% of the respondents, while a majority refers to 50-66%. The subjects who returned the questionnaire are referred to in the text as 'respondents'.

Chapter III
Results

3.1 Clinical Teaching

Clinical teaching takes place both in the colleges and in the extra-institutional facilities, for example hospital wards. In clinical teaching in the hospital wards, the lecturer must interact with the personnel who are directly responsible for the patient's care. In observing clinical teaching, the researcher noted that the clinical supervisor interacted mostly with the nursing staff rather than the medical or paramedical staff.

There were two patterns of clinical supervision in the clinical area. In the 'close-linking' pattern, the supervisor stayed with the students within a small geographical area and was the students' first line of contact for any nursing decisions. The clinical teacher and student group had very little contact with the nursing staff of the ward, instead forming a tight little group. The clinical teacher appeared almost to sequester the students from the ward staff. This pattern was usually justified as:

> *In this area, it's more acceptable to the hospitals. They see it as credible. They say "The students are your responsibility, you are there to teach them, not just to have them experiencing without seeing the relevance of it." You've got a teaching role. (12/94/21)*

In the second pattern of 'buddying-up' the lecturer teamed up individual students with specific hospital staff, and then withdrew to a certain extent. While the students were 'buddied' to a nurse-clinician, the lecturer then circulated among the students, doing the necessary

teaching. The clinicians were then partially responsible for the students. The lecturer had to familiarize the clinical staff with the students' learning needs. The advocates of 'buddying-up' justified it on the grounds that it was realistic, for example:

> *If you have them hanging around you all the time, without relating to other health people, then they go out of the course not knowing how to go about relating to people. And also to see what happens throughout the day. If you take six students and give them one patient each, that's not the real world. (9/92/01)*

In the second round of interviews, the researcher investigated the patterns of clinical teaching in the hospitals more closely with 9 of the 11 remaining subjects (The other two did non-institutional clinical teaching such as health assessments in which the question was irrelevant).

There appeared to be four factors that influenced which system of supervision the lecturer used. The first factor was the type of nursing. The two clinical teachers in the psychiatric area both used the 'buddying-up' system. The seven medical-surgical lecturers were almost evenly divided in the system that they used. Which system they used depended on the other factors. Although there were too few teachers to generalize, it is possible that the psychiatric area lent itself to 'buddying up' because it was desirable to encourage the patient/nurse dyad and the teacher may have preferred to be at a distance. It is also possible that as psychiatric nursing was less fraught with opportunities to do physical harm to the patient, the teacher felt more comfortable with 'buddying up'.

The second factor that affected the clinical teachers' choice of pattern was the geographical placement of the students in the hospital. Where the teacher was able to place all the students (s)he was teaching in the same ward, or reasonably close, (s)he was able to use the 'close-linking' pattern. Conversely, if the lecturer had to have students on several wards, 'buddying-up' was the method of choice.

The third factor was the level of the student; for example 'close-linking' was used more for first year students who were considered to need closer supervision. For the third year students, 'buddying-up' increased the students' ability to function as a member of the ward team, provided the registered nurse with whom they were 'buddied' allowed them to be reasonably independent.

The fourth factor was the number of students in the teacher's care. Where there was a large number of students, for example eight, the lecturer was more likely to 'buddy' them up. This approach was linked to the production of a 'safe' nurse, because the clinical teachers did not consider that they could be responsible for patient safety if large

numbers of students looked after patients. Conversely, where there was a small number of students, 'close-linking' could be used if desired.

There was relatively little advance planning for the clinical teaching in the clinical facilities, compared to planning for lectures, tutorials or nursing laboratories in the college. However, to the extent that planning was possible, the system of clinical supervision that a clinical teacher used affected planning. Clinical teachers who used the buddying-up system selected appropriate registered nurses to whom to attach the students. Clinical teachers who used the 'close-linking' system needed to plan the students' patient assignments. The teacher also needed to plan student activities that fit in with the particular system that (s)he was using. One teacher arranged for the students to go to other educational activities such as viewing an ultrasound in the maternity clinic. The overriding factor in clinical teaching and supervision was the teachers' concern for the safety of the patients.

3.2 The 'Safe' Nurse

In the follow-up interviews, the researcher investigated whether the concept of the 'safe nurse' was still prevalent. When asked what sort of a nurse they wanted to produce from the basic program, seven of the 11 subjects mentioned the word 'safe' or its equivalent without prompting, for example:

> *A first level practitioner who is safe and competent in a broad number of areas of nursing. Somebody who can be accountable. (6/91/01)*

The notion of safety was predominant in the lecturers from College C, as all four, in describing their ideal nurse, mentioned 'safe' as the first attribute of their ideal nurse. When questioned about this, one lecturer stated:

> *I think that's because it's part of our philosophy. It's something that, from the very first time we started here, was always basically our aim. And we are very particular in this college. And I think we have instituted a lot of safety things within the college program. ... It flows from everybody. It is just something that underpins everything we do. And this is always our main concern, a safe practitioner. (5/90/03)*

All subjects, when asked, agreed that safety was important. The subjects were asked to define what they meant by 'safe'. A typical response was:

> *That they make appropriate, non-dangerous clinical judgments in ... being involved in direct care giving, within safe parameters; they don't do damage to anyone. (8/92/01)*

Other themes in the safety aspect emerged, for example:

> *[They have] to recognize their own limitations. For example, if they are asked to do a procedure for which they do not have adequate knowledge or experience, then I would hope that person would approach somebody superior to them to rectify that. (6/91/01)*

The 'safe' nurse would administer drugs with caution, for example:

> *They've got to be able to recognize that when they're giving a drug they've never heard of before they go and look it up. There's no way they're going to go out with a complete understanding of all the drugs and their side effects. (12/94/02)*

The safety aspect with regard to drugs is of particular concern to the profession as there is a great deal of potential for doing harm to the patient through incorrect drug administration.

Safety included psychosocial as well as physical safety, for example:

> *[A safe nurse is] someone who is protecting the wants and needs of the patient. ... It may mean just being safe in terms of recognizing the person's need for privacy. That's safety to me, because if the student doesn't screen off the bed and starts to do something that's going to embarrass the patient, that's not a safe practice because it can upset the patient. (12/94/03)*

and patient advocacy, for example:

> *If this nurse sees that something is wrong, and can ultimately harm the patient or perceive that as potential danger or unsafe for the patient, then she would protect the patient by speaking up. (3/88/04)*

Thus, the notion of producing the 'safe' nurse was still prevalent in the college system, but it was broadened to include psychosocial aspects. The nurse had to perform the duty of care, and the nurse-academics were clearly conscious of this.

The legal aspects of duty of care were brought into the lecture content, for example:

> *Say I'm giving a lecture on vital signs, something as basic as that. I talk about legal aspects of taking a temperature in a child in the wrong area, a confused patient or a head injury, or recording observations that are not accurate. (9/01/06)*

In clinical teaching, the hospital staff were responsible for patient care, but the lecturers were responsible for nursing actions taken by themselves or the students. This led to tension between adequate supervision of the students and encouraging student independence, for example:

> *I do feel that I've got to watch what's going on there, because I do feel an obligation towards what the students are doing with the patient. You have to give them leeway sometime and trust them, but you pick your students. And you try to let them get some confidence in themselves and don't stand over their backs all the time. (9/01/12)*

The legal liability factor could make the lecturer more protective of the students and could affect what type of patient the lecturer assigned to the student, for example:

> *I'm responsible for the actions of my students, and likewise the college is vicariously liable for me. ... When I do my pre-clinical conference the day before, I usually allocate patients, so [the students] have to assess them and present a plan to me. I plan my day along those lines. Where I know that's going to be a high supervision time with that particular student, what I try and do is get the other students to do at that time things that are self directed or don't require my supervision, or could be supervised by the ward staff because it has a minimal risk to the patient. So, yes, the legal ramifications very much influence how I organize my practical day. (2/11/03)*

The number of students that a clinical teacher could adequately teach was related to the legal liability factor. If the teacher had a relatively large number of students to supervise, then (s)he had to consider the legal aspects, for example:

> *If you have six or eight students and you get them involved in looking after patients, it's very hard to keep an eye on the whole lot of them all at one time, and you've got to assess which ones are the most reliable. (9/62/02)*

The notion of the 'safe' nurse is a major finding of this study

3.3 Clinical Influences

The Clinical influences comprised the influence of interpersonal relationships, characteristics of the clinical facilities and the system of care. These influences affected instructional planning decisions (See Figure 1).

The influence of the influence of the clinical facilities was investigated in the questionnaire by the clusters 'Interpersonal Relationships', 'Characteristics of the Clinical Facilities', and 'System of Care'.

A majority of respondents (53%) perceived the interpersonal relationships in the clinical facilities to be facilitating; about one-third (37%) perceived them not to be influential; and few (10%) perceived them to be constraining. Almost half (40%) of the respondents

perceived the characteristics of the clinical facilities to be constraining; about one-third (37%) perceived them to be not influential; and fewer than one-quarter (23%) perceived them to be facilitating.

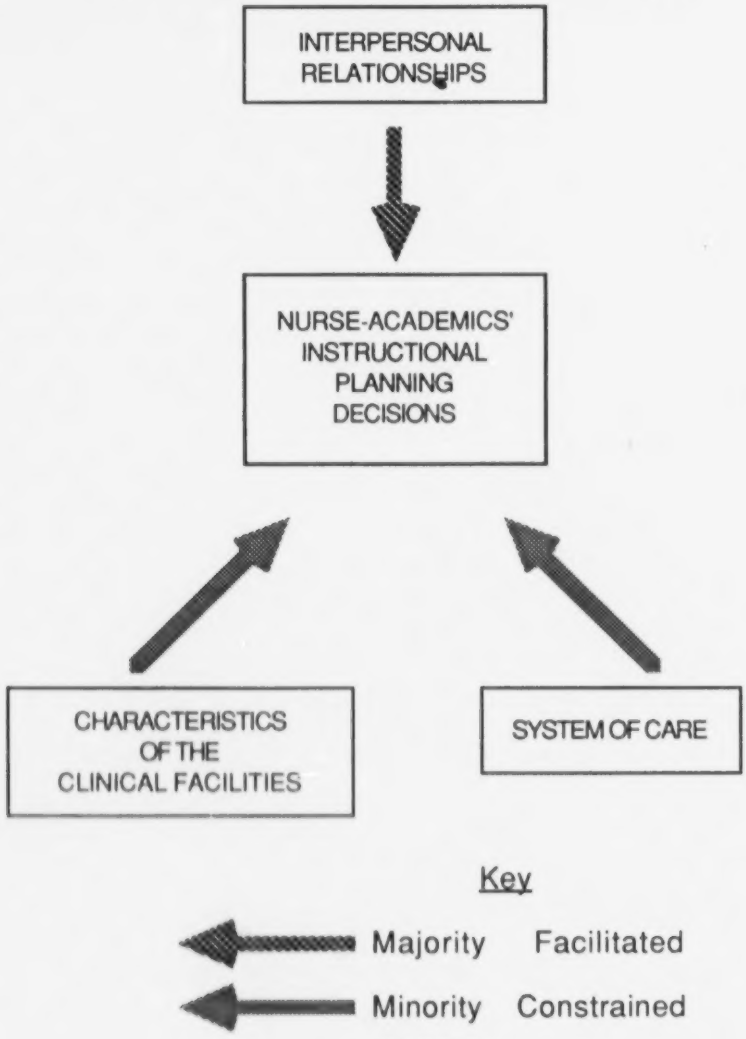

FIGURE 1
Clinical Influences: Relationships

Almost one half (42%) perceived the system of care to be not influential; about one-third (37%) perceived it as constraining; while fewer than one-quarter (21%) perceived it to be facilitating (See Figure 2).

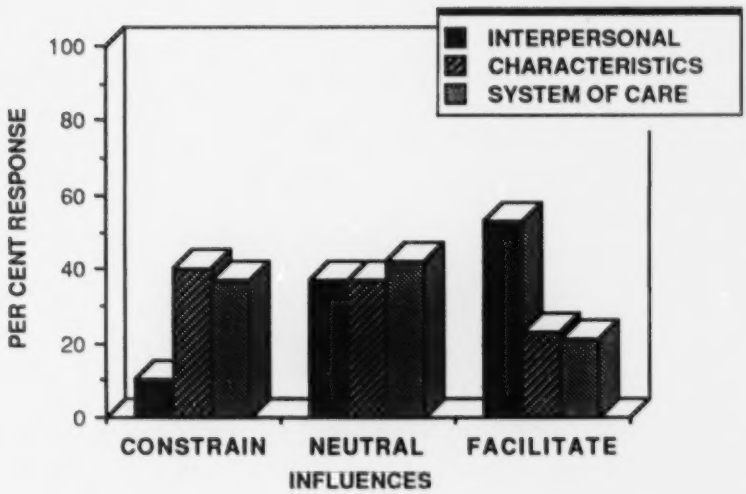

FIGURE 2
Effects of Clinical Facilities Influences on Instructional Planning Decisions

The extra-institutional clinical factors did not directly affect the nurse-academic teaching in the college in lectures and tutorials, but had an indirect effect on the teaching in the college and a direct effect on teaching in the extra-institutional clinical facilities themselves.

3.4 Interpersonal Relationships

The interpersonal relationships in the clinical facilities included the rapport with the nursing staff, medical staff and patients. Interpersonal relationships were moderately facilitating (see Figure 2). Table 1 shows the effects of the interpersonal relationships on the instructional planning decisions.

3.4.1 Public Relations

The college program of nursing education had to be 'sold' to the medical profession and the nursing profession as it was a radical departure from the traditional hospital system of nursing education. They needed to be convinced that the new system would produce a

nurse who was safe and competent. Eleven lecturers mentioned public relations as a very important part of the clinical role, for example:

> [Public relations] is the most important part of the clinical role, apart from the students. (11/30/03)

Table 1
The 'Interpersonal Relationships' Cluster
(Cronbach a = 0.82)

	Con %	Neut %	Fac %	Mean	S.D.
Whole Scale	10	37	53	3.5	0.6
Factors Constraining a Minority of Subjects (33-50%)					
Nursing staff's expectations of students	45	25	30	2.8	1.1
Medical staff's expectations of students*	40	56	14	2.6	0.8
Nursing Admin's expectations of students	37	37	26	2.8	0.9
Factors Influencing Few Subjects (<33% constrained or <33% facilitated)					
Authority of charge sister	30	38	32	3.0	1.1
Factors Facilitating Most Subjects (>66%)					
Clinical tutor's rapport with clients	05	17	78	4.1	0.8
Clinical tutor's rapport with nursing admin	09	21	70	3.7	0.8
Factors Facilitating The Majority of Subjects (51-66%)					
Clients' attitudes to students	12	26	62	3.6	0.8
Rapport with nursing staff	25	15	60	3.6	1.2
Staff co-operation re: access to clients	25	24	51	3.7	1.0
Clinical tutors' accountability for students	21	28	51	3.4	1.1
Factors Facilitating a Minority of Subjects (33-50%)					
*Clinical tutor's rapport with medical staff	11	52	37	3.3	0.8

Key: (for this and subsequent tables)
Con = Constrains
Neut = Neither constrains nor facilitates (neutral)
Fac = Facilitates

N.B. Items marked with an asterisk are singleton items.

It was necessary to allay the anxieties of the clinical nursing staff, who were concerned that the new system should produce a nurse who was able to function in the clinical setting:

> *One of the things that I found that the staff at the clinical site were afraid of was the 'academic nurse' and the assumption that they made was that I would probably be a waffly thinking person, up in the clouds, and the first thing I said to them was "I'm real, I'm not up there with all the woolly thinking, I believe in absolutely applying, getting down to the nitty-gritty, getting hands on". What I did do as well was avoid jargon. When I wrote guidelines for the staff, I tried to avoid every educational term I could think of, because they're frightened of their futures, it's essential to talk in their language, and acknowledge them as the specialists. (11/30/06)*

This nurse-academic was conscious of the necessity to relate to the clinicians in a realistic and non-threatening way. (S)he knew that using educational terms such as 'behavioural objective' or 'entry levels' would have alienated the clinicians.

Thus, the necessity to do public relations work in the clinical facilities was related to the medical profession and nursing staff's expectations of the nurse. The public relations work resulted in easier access to clinical learning experiences for the students through co-operation of the staff and patients, for example:

> *When I've identified those problems, I sit down and have a talk to those people. So there's a lot of liaison goes on. I think that's why a lot of my things go positive there because I know a lot of those people. ... But it's one of the influences that I think we should always consider and I keep telling the clinical co-ordinator that teachers should only have a couple of hospitals that they go to so that they can build up liaison. (12/26/04)*

The public relations work increased the workload of the lecturers in the clinical area. One lecturer commented that in an institutional clinical placement, the workload could be 50 hours per week instead of the allotted 35, because of the public relations work. (11/30/03) Thus the pressure of public relations was mainly through the increased workload it produced and the emotional strain of having to defend the college system.

3.4.2 Medical Profession

The medical profession had a minor influence on nurse-academics' instructional planning decisions. The lecturers had minimal contact with the medical profession. Individual physicians were able to affect planning at the clinical level through having to give permission for observation of their activities and access to their private patients.

About one-third of respondents (37%) felt that the 'Clinical tutor's rapport with the medical staff' was facilitating. Three lecturers interviewed stated that they found the doctors helpful, for example:

> *The medical staff is surprisingly helpful, especially the younger ones. The older ones usually say they don't like the college [system], but the intern or the registrar, they're surprisingly helpful. (3/18/03)*

However, almost half (40%) of the respondents perceived the 'Medical staff's expectations of student nurses' as a constraint. The medical staff's expectations of the students may have been linked to the concept of a 'safe' nurse who would do no harm to 'their' patients.

The professional links that the nurse-academics already possessed with the doctors could assist the nurse-academic/doctor link, for example:

> *In the clinical placement I go to, ... you're on a first name basis with them, you know them very well, and they'll say "How are the students going?" and you talk about it and they say you could teach them this or that. So far, we've covered all the bases that the doctors have suggested. (13/05/05)*

Four lecturers stated that doctors didn't influence them or have much contact with them, for example:

> *I don't have much to do with doctors. They keep out of your hair. They're only interested in the medicine side. (10/25/04)*

Thus, the rapport with the medical staff was facilitating, but the latter's expectations of students were constraining.

3.4.3 Clients

The clients were a facilitating influence on nurse-academics' instructional planning decisions. Most respondents (78%) found 'Clinical tutor's rapport with clients' and the majority (62%) found 'Clients' attitudes to students' facilitating. The respondents found the rapport with clients and clients' expectations of students to be the most facilitating of the interpersonal relationships as far as planning instruction was concerned.

3.4.4 Nursing Staff

The majority of nurse-academics (60%) found interpersonal relationships with the nursing staff facilitating. Most respondents (70%) found that 'Clinical tutor's rapport with nursing administration'

facilitated instructional planning decisions. However, about one-third (37%) found 'Nursing Administration's expectations of students' a constraint. Almost one-third (30%) found 'Authority of charge sister' constraining and about the same number (32%) found it facilitating. A majority (51%) found 'Clinical staff co-operation on access to clients' facilitating. A majority (60%) also found 'Rapport with nursing staff in clinical facility' facilitating. The latter item, however, attracted a bimodal response, indicating that a quarter perceived their rapport with the nursing staff as constraining. A Chi Square test showed that there was no significant difference in the facilitated and constrained groups for size of college, location of college, or colleges visited and not visited.

Four lecturers found the nurse-clinicians helpful and accepting, for example:

> *In general, [registered nurses] are accepting. There are always one or two who don't understand really what college education is all about. (3/18/02)*

However, four lecturers reported resentment or antagonism at times, for example:

> *On the whole, people are resentful that [the students] are coming out as registered nurses. (12/26/04)*

The negative attitudes of the nurse-clinicians seemed to be lessening as they adjusted to the new system, and perhaps because of the public relations efforts of the nurse-academics. One lecturer found that involving the clinical staff was beneficial:

> *I go and talk to the charge nurse and the other R.N.'s and say "These are the sorts of experiences I want for my students, what patients would you recommend?" ... I find that when you involve them in your planning, you tend to get more co-operation. Then they feel as though they're doing something for our students. (2/11/09)*

Four lecturers commented on the clinicians' expectations of the students, for example:

> *Students were expected to be quick, students were expected to know, and that knowing seemed to be without being told. (11/30/02)*

An example of the expectations of the clinician affecting the planning decisions was the issue of what time the students would start for the day. The routine hospital day starts at seven o'clock; consequently the ward staff expected that the students should start at seven:

> *How are they going to get to know the real thing if they can't be here at seven? (12/26/03)*

It was the decision of the individual lecturer what time students started, as long as they did not exceed the prescribed number of hours. One lecturer reacted to this expectation by starting the students at seven on the basis that:

> *It's good for [the students] experience-wise, and it certainly does make you more accepted as part of the staff in the clinical area. ... You might not have the number of patients that you want if you don't actually start at that time. (5/22/03).*

Another elected to start the students at eight because of their student status and because of travel problems. (12/26/03). The expectations of the nursing staff may have been linked to their concept of the 'safe' nurse. The nurse-academics and nurse clinicians were virtually all educated in the same system and socialized into the belief that the nurse must be safe. They acquired their licence to practise through the Nurses' Registration Board examination predicated upon the notion of the 'safe' nurse. This notion could have affected the clinicians' expectations of the student nurses and the type of nurse the student should become.

Thus, the interpersonal relationships in the clinical facilities were in the main a set of facilitating factors. The expectations of the medical and nursing staff were, however constraining. As there was comparatively little pre-active decision-making for the clinical component, however, the influence of the clinicians affected only a small proportion of the total number of instructional planning decisions. Their influence was through their expectations of and attitudes to the college students and lecturers.

The facilitating effect of the interpersonal relationships between the nurse-academics and their nursing colleagues in the clinical facilities is a major finding in his report. The people that the nurse-academics worked with were primarily perceived as facilitating instructional planning decisions.

3.5 Clinical Facilities: Characteristics

Almost half of the nurse-academics (40%) perceived the physical characteristics of the clinical facilities as constraining their instructional planning decisions (see Figure 2). Table 2 shows the results for the influence of the Characteristics of the Clinical Facilities on nurse-academics' instructional planning decisions.

3.5.1 Availability of Appropriate Clinical Facilities

Many respondents (46%) found the 'Number of health care facilities in the college area' constraining. A cross-tabulation showed that there was no relationship of scores on this item with size of college, or geographical setting of college. A Chi square analysis showed that for the four colleges visited by the researcher, almost equal numbers of respondents were constrained and facilitated, but for colleges not visited, almost five times as many respondents found that they were constrained as facilitated (p = 0.01). As the colleges visited did not include colleges in less accessible areas, perhaps they had fewer facilities available as they were in less populated areas.

About one-third of respondents (39%) found 'Access to clinical placements' constraining and almost half (45%) facilitating. Almost half (43%) were constrained by 'Type of client available for clinical practice' constraining and almost half (45%) were facilitated. A cross-tabulation showed that there was no relationship between the score on these two items and size of college, location of college, or whether or not it was a college visited by the researcher. Almost half (46%) found the 'Service needs of the clinical facility' constraining.

Seven lecturers found that locating sufficient numbers of appropriate placements was a constraint, for example:

> *The actual availability of placements in real numbers is one issue, and their appropriateness. (8/23/01)*

Table 2
The 'Characteristics of the Clinical Facilities' Cluster
(Cronbach a = 0.84)

	Con %	Neut %	Fac %	Mean	S.D.
Whole Scale	40	37	23	2.8	0.8
Factors Constraining a Minority of Subjects (33%-50%)					
Size of individual clinical facilities	50	26	24	2.6	1.1
Geographical layout of the clinical facility	46	40	14	2.6	1.0
Number of facilities in college area	46	19	25	2.8	1.2
Adequacy of facilities for clinical teaching	46	16	38	2.8	1.3
Service needs of the clinical facility	46	36	18	2.7	0.9
Factors Facilitating a Minority of Subjects (33%-50%)					
Type of client available for clinical practice	43	12	45	3.1	1.2
Access to clinical placements	39	16	45	3.0	1.4
Adequacy of facilities for clinical teaching	46	16	38	2.8	1.3

Interviews with the clinical co-ordinators also showed that there was a problem in acquiring sufficient numbers of clinical placements in certain areas. The shortages were also related to the numbers of students in the colleges. Additionally, where several colleges in a geographical area such as Sydney had to share the number of available placements, competition for resources exacerbated an already tense situation. On one visit to a clinical area, the researcher noted that students from two colleges were on the same ward at the same time. At the time of writing, the clinical co-ordinators of the various colleges were initiating meetings amongst themselves to plan their clinical experience in such a way as to avoid overlap and thus maximize the use of the limited clinical facilities.

This constraint of lack of availability of suitable clinical facilities affected strategies at the individual teacher planning level; for example using a simulated patient played by an actor experienced in psychodrama in lieu of practice on genuine patients (12/26/02). It could also affect the placement of units in the theoretical curriculum if clinical experience could only be done at certain times.

3.5.2 Teaching Resources

For the factor 'Adequacy of facilities for clinical teaching', almost half of the respondents (46%) were facilitated and about one-third (38%) constrained. A cross-tabulation showed that there was no significant difference between size of college, location of college, or whether or not it was a college visited by the researcher. Within the group of colleges visited by the researcher, respondents from the religious-based college found that they were facilitated by the adequacy of the clinical facilities, while those in the non-Sydney, metropolitan college found that they were constrained. The constraints tended to be lack of equipment, for example:

> *Some nursing homes don't have a resuscitation trolley. You want to go through that with the students, first thing, and they don't have it. (3/18/05)*

3.5.3 Geographical Features

Of the respondents, almost half (46%) found the geographical features of the clinical facilities a constraint. Half (50%) found 'Size of individual clinical facilities' constraining, and almost half (46%) found the 'Geographical layout of the clinical facilities' constraining. Seven lecturers stated that the geographical layout and/or the size of the clinical facility was a constraint on their planning, for example:

> *I've got two wards, and I'm going to have to run back and forth between the two wards and that makes a big difference to my planning. (5/22/01)*

The effect of the layout of the institution on the selection of an overall strategy of clinical supervision has already been discussed. However, the layout could be a stimulus to the lecturer to devise alternative strategies. For example, on a medical ward, one lecturer solved the problem by allocating students to the physiotherapy department, the rehabilitation centre, or the operating theatre, leaving a manageable number to teach on the ward. If lecturers had to split their time between wards, they needed to make arrangements for alternative supervision or self-directed activities for the students.

Thus, the lecturers in this study were moderately framed by the characteristics of the clinical facilities, which created a smaller decision-making space for instructional planning decisions in clinical teaching.

3.5.4 Richmond Scheme

At the time of the study, a major influence from the clinical facilities was the Richmond scheme for de-institutionalization of psychiatric and developmental disability patients (Richmond, 1983). Six lecturers, all of whom lectured in the psychiatric/ developmental disability area were influenced by the philosophy and policies of Richmond. The Richmond scheme particularly affected clinical experience and the content areas of mental health, community health, developmental disability and psychiatry, for example:

> *... it absolutely influences content; when we talk about institutionalization, and mental health and institutional neuroses, we've also got to talk about de-institutionalization, independent living skills programs. (8/23/05)*

Thus, the Richmond scheme was a frame factor for psychiatric/develomental disability nurse-academics' instructional planning decisions.

3.6 System of Care Delivery

About one-third of the respondents (37%) found the system of care in the clinical facilities constrained their instructional planning decisions (see Figure 2). Table 3 shows the effects of System of Care on nurse-academics' instructional planning decisions. A breakdown of the cluster by college showed that the subjects from a religious institution that used the clinical facilities run by that religion found the system of care facilitating, while the subjects from two colleges with a curriculum

that was run by learning packages on a non-medical model found the system of care constraining. Perhaps the system of care, which was run on the medical model, was more constraining to these institutions because it was less congruent with the curriculum. The organizational structure of the hospital is usually according to body systems, for example the 'gastro-enterology' ward which deals with diseases of the liver, stomach and intestines. This classification has grown up with the development of medical specialties and suits the way in which the medical profession is organized. However, the curriculum of these colleges was organized on the lines of learning packages using nursing-oriented problems such as 'oxygenation' which cross the traditional medical boundaries of cardiovascular and pulmonary diseases.

3.6.1 Philosophies, Policies and Regulations

Of the respondents, almost half (40%) found that 'Clinical facility's policies on student practice' were constraining and almost half (42%) found the 'Clinical facilities' regulations' were constraining. About one-third of respondents (34%) found 'Policies of the clinical facility about care' constraining and a breakdown by college showed that the college constrained was again one with a curriculum that was organized by nursing-oriented learning packages rather than the medical model. Almost one-third (32%) found 'Philosophy of care in the clinical facility' and 'Standards of care in the clinical facility' facilitating. However, almost one-third found the latter factor constraining.

Table 3
The 'System of Care' Cluster
(Cronbach a = 0.85)

	Con %	Neut %	Fac %	Mean	S.D.
Whole Scale	37	42	21	2.9	0.7
Factors Constraining a Minority of Subjects (33%-50%)					
Clinical facility's routine	50	28	22	2.6	1.0
Clinical facilities' regulations	42	42	16	2.5	0.9
Clinical facilities' system of organizing care	45	28	28	2.8	1.0
Clinical facility's policies re: student practice	40	32	28	2.9	1.0
Policies of the clinical facility re: care	34	38	28	3.0	0.9
Factors Influencing Few Subjects (<33% constrained or <33% facilitated)					
Philosophy of care of the clinical facility	16	42	32	3.4	0.9
Standards of care in the clinical facility	31	37	32	3.1	1.0

Three lecturers stated that policies could be a problem; for example one institution had a policy that only registered nurses could do blood sugar level readings using the glucometer, which meant that the lecturer had to plan the supervision of the students so that (s)he could supervise every single glucometer reading (2/11/10). It is in the area of the third year, where there are more technical competencies that the lecturers want to teach that the lecturers may come into conflict with the clinical facility's policies, for example:

> *You've got to stay within ... hospital boundaries, hospital policies. (5/22/06)*

Policies tended to be developed to cover procedures that have legal implications. Many nurse-academics were therefore framed by policies of the clinical facility.

3.6.2 Organizational Patterns of Care

Of the respondents, half (50%) found the 'Clinical facilities' routine' constraining, while almost half (45%) found the 'Clinical facilities' system of organizing care' constraining. Seven lecturers found that the clinical facilities' routine and/or regulations were constraining. For example, models of nursing and unwritten codes of care in psychiatric nursing were brought into the didactic content, for example:

> *It's all the needs approach. Every patient has about 50 different assessments done on them which determine behavioural criteria, and just about every individual they come across will be involved in programs. The students are expected to work within those program frameworks. So they need to know the principles of behaviouralism, so that does affect content. (4/09/09)*

Procedures were also constraining, for example:

> *We try and teach principles, but we say to the students, if they don't wear hats and gowns at this hospital to do dressings, you don't. (1/57/24)*

Hospitals had varied ways of doing the same procedure, for example dressings. This variation could mean that the lecturer had to teach the principles of the procedure, for example aseptic technique, and also include the variations that the student could encounter in the different clinical facilities.

Hospital routine was also a constraint on the ward, for example:

> *There's still that thing about people getting dragged out of bed at seven in the morning and things have got to be done by eleven. (11/30/04)*

The support services of the hospital could also be a constraint, as the nurse-academics were dependent on the hospital for these:

> *Believe it or not, things like the availability of the dining room at certain times. It's not obvious, but planning to do things at a certain time, for instance, if the students don't get their morning tea, they get [irritable], and if I don't get my coffee, I get [irritable], and at one hospital, morning tea is only available between 10 and 10:45 a.m. ... If you get there at a quarter to, the coffee's wheeled away, there's no cups and you just sit there. So, some of those things that aren't major constraints certainly do influence what you do at certain times, the structuring of your day. (2/11/11)*

Thus, the clinical facilities' system of organizing care and their routine constrained nurse-academics' instructional planning decisions. A Pearson correlation co-efficient procedure showed that there was a fairly strong correlation ($r = 0.8$; $p \leq 0.001$) between scores on the 'Characteristics of the Clinical Facilities' clusters and scores on the 'System of Care' clusters, indicating that there was a relationship between them.

3.7 Summary

The clinical facilities influences operated mainly on the clinical component of the curriculum. There was some influence of the clinical facilities frames on content in lectures, tutorials and nursing laboratories as lecturers felt that they must teach what the students would be exposed to on the wards.

The interpersonal relationships with the nurse clinicians in the clinical facilities were perceived by the nurse-academics to be facilitating. The clinical tutors' rapport with clients was a strong facilitating factor, as was the rapport with nursing administration. Clients' attitudes to students, rapport with nursing staff, staff co-operation about access to clients, clinical tutors' accountability, and rapport with medical staff were moderately facilitating factors. The facilitating effect of the people that the nurse-academic works with is a major finding in this study. The nursing staff, medical staff and nursing administration's expectations of the students were, however, frame factors.

The characteristics of the clinical facilities were a moderate frame. The size of the clinical facilities and the Richmond Scheme were strong frame factors. Moderately strong frame factors were: the number of clinical facilities in the college area, the service needs of the clinical facility, the adequacy of clinical facilities for clinical teaching, the

type of client available for clinical practice, and access to clinical placements. The last three factors were also weak facilitating factors for some nurse-academics. The constraint of the physical teaching environment was another major finding in this report.

The system of care delivery was also a moderate frame. Significant frame factors were: the routine of the clinical facilities, the system of organizing care and the policies and regulations regarding student practice and nursing care.

Chapter IV
Discussion

4.1 Conclusions

a) The interpersonal relationships in the clinical facilities are a facilitator.

b) The physical characteristics of the clinical facilities are a moderate frame.

c) The system of care in the clinical facilities is a moderate frame.

4.2 Major Findings

4.2.1 Clinical Teaching

This study demonstrated that there were two patterns of clinical supervision: 'buddying-up' and 'close-linking'. 'Buddying-up' was used where the students were having psychiatric nursing experience, geographically dispersed, more senior, or more numerous.

4.2.2 The "Safe" Nurse

In this study, a major finding was that the concept of the 'safe' nurse in all its variations, was alive and well. The nurse-academics had brought this value with them from the hospital schools into the tertiary education system. This was to be expected, for the nurse's duty of care toward the client was not changed by the movement of nursing

education into the tertiary education system. Indeed, the question of whether a tertiary education was going to produce a 'safe' nurse was being asked by the profession at large; hence it is hardly surprising that the nurse-academics were concerned to produce a 'safe' nurse.

4.2.3 Interpersonal Relationships

The interpersonal relationships in the clinical facilities were primarily facilitating factors that enlarged the nurse-academics' decision-making space. The rapport with professionals in the clinical area was a successful outcome of the transfer of nursing education to the tertiary education sector. Perhaps this success was mainly owing to the massive amounts of public relations work carried out by the Heads of department at the organizational-planning level, and the nurse-academics at the work face level, during the introduction of the new system.

The expectations of the nurse-clinicians, nursing administration and medical staff concerning what the students ought to be able to do, however, were perceived as constraining. Although the nurse-academics supervising the students were able to isolate the students to a certain extent from these expectations, particularly if they used the close-linking pattern of clinical supervision, the expectations were nevertheless somewhat influential. These expectations were probably grounded in experience of what the student nurse in the traditional hospital system of training was able to do. Perhaps this problem will be solved by time as the college graduates eventually replace the hospital trained graduates as the nursing staff of the clinical facilities.

In the move to tertiary education, the nursing profession greatly diminished the influence of the medical profession on the education of its practitioners. It emerged from a system of training dominated by doctors as the expert lecturers using the medical model as a conceptual framework in the curriculum. It created a system that recognizes nurses as the expert lecturers with freedom to choose a conceptual framework based on a specific nursing theory or an eclectic use of nursing concepts.

4.2.4 Characteristics of the Clinical Facilities

The characteristics of the clinical facilities, in particular their size, were perceived as a moderate frame. Some found the adequacy of the clinical facilities for clinical teaching, the type of client available for clinical practice and access to clinical placements facilitating. The respondents from the religious college perceived the clinical facilities as more facilitating than those from non-sectarian colleges. Some lecturers

found that the characteristics of the clinical facilities were a stimulus to devising alternative ways of achieving their objectives. This suggests that the frame is not strong, and thus has only a moderate effect on the nurse-academics' decision-making space.

The other frame factor of note in the Characteristics of the Clinical Facilities Influences is the Richmond Scheme which was being implemented at the time of the study. It significantly affected the instructional planning decisions of the psychiatric/developmental disability/ mental health lecturers. This may have occurred because it was a major change in the provision of psychiatric and developmental disability health services for the community.

4.2.5 System of Care

The System of Care in the Clinical Facilities was perceived as a moderate frame. The system of care resulted from the historical development of nursing in Australia. It was an inheritance from the British system of task-oriented nursing in which the work was assigned by tasks suitable to the level of the nurse rather than patients assigned suitable to the nurse's capability. At the time of the study, the Australian system was in transition, with the transfer from task-assignment nursing to patient-assignment nursing well underway. Thus, the nurse-academics, encountering a system in the process of changing could well have found it constraining.

The routine and system of organizing care were stronger frame factors than the policies and regulations of the clinical facilities. The former are systems that have become an entrenched part of the health care system and are more immutable than policies and regulations. Thus they would be perceived as more constraining.

The clinical facilities are distal influences for the nurse-academics' instructional planning decisions as far as classroom instruction is concerned because they are outside the tertiary education system. A distal influence is defined by the author as one outside the main system but which impinges on it. However, for the nurse academic planning clinical instruction in the clinical facilities, the characteristics and system of care become to some extent higher order frames because decisions must be made in the context of decisions made at a higher level of the bureaucracy of the clinical facilities.

4.3 Relationship of This Study to Other Studies

A discussion of the relationship of the findings of this study to the general education literature can be found in Roberts (1989). No other studies were found concerning the influence of clinical facilities on

nurse-academics' instructional planning decisions. The results of this study have not been related to the theory-generating studies because the latter were mainly concerned with interactive decision-making. However, they do confirm the theory that there are frame factors which impinge on instructional planning decisions such as physical characteristics, postulated by Dahllöf (1978), and suggest that these factors are common to both planning and interactive decisions.

4.4 Generalizing the Findings of the Study

There was a lack of difference in the scores on the questionnaires from different department sections which indicates that the findings of this study are generally valid for nurse-academics in New South Wales. Although the interview data were taken only from nurse-academics working in the Nursing and Health sections of the four colleges visited, and not Life Sciences or Behavioural Sciences, the finding that the interviewees were not significantly different from the rest of the questionnaire sample on their responses to the questionnaire indicates that the interview data may well apply to those other nurse-academics. The finding that the interview data in general agree with the questionnaire data also indicates that the findings of this study can be generalized to all nurse-academics in New South Wales.

The results for the earlier interview data were confined to constraints only. Therefore the findings for the earlier data should only be generalized to constraints.

The findings of this study may have implications for other states. Although the sample was drawn from New South Wales only, the similarity of the nursing system and its historical development across Australia suggest that the nurse-academics in New South Wales would not be very different from nurse-academics in other states and territories.

4.5 Limitations of the Study

The instrument was able to measure the strength of the frames and facilitators only in terms of the percentages of people reporting themselves as affected. It did not account for the individual's perceptions; however the interview data were able to supplement the quantitative data in terms of not only the number of people affected, but the nature of the effect. The instrument was able to measure the strength of the frames and facilitators only, whereas the qualitative data gave indications of both the strength and size of the frames and the strength of the facilitators.

4.6 Theoretical Framework

The theoretical framework for this study was frame factor theory, discussed in Chapter 1. This study has shown that frame factor theory only accounts for some of the influences on the nurse-academic. There is in fact a continuum of influence ranging from strong constraints at the one end to strong facilitators at the other. The facilitators, composed of facilitating factors, are the opposite of frame factors and are manifestly different. There has been a dearth of research on this topic. This study has developed the concept of facilitators and facilitating factors to explain positive influences on curriculum decision-making. The frames and facilitators both have the dimension of strength as measured by the degree that the subjects are affected; however the notion of size is much less applicable to the facilitators except in that they enlarge the decision-making space. The author therefore proposes facilitating factor theory to account for the positive influence of facilitating factors on curriculum decision-making. This theory development has extended the concept of decision-making space explored by Smith (1984). In the case of facilitators, the decision-making space is opened up rather than diminished as it is by frames. The author has also proposed distal influences to account for influences outside the system but which may influence decision-making.

4.7 Strengths of the Study

By using a random sample of all of the nurse academics in New South Wales for the questionnaire, the study insured a reasonable level of external validity. Selecting colleges representative of size and geographical location also ensured a degree of external validity. Also, because the study used an interview sample representative of the nursing department in terms of section, gender, and type of subject taught, the results for the interview sample could be generalized. Restricting the sample to one year's experience in the institution also ensured the subjects' familiarity with environment and increased internal validity.

The face validity of the questionnaire was enhanced by deriving the items from issues arising from the pilot study. It was also increased by having the questionnaire vetted by expert nurse-academics in positions of authority. The alpha co-efficients for the clusters and the good return rates also helped ensure the validity of the findings and the Roberts Scales.

The use of triangulation, or multiple methods of data collection, helped to ensure internal validity. In the main, the questionnaire and interview data supported each other which argues for the validity of the

findings and for the value of triangulation in educational research. This study has gone beyond the mere investigation of relationships between variables inherent in the logical-positivist research paradigm. Through the use of interviews it has enabled the collection of data with considerably more depth, thus supporting the stance of Nolan and Short (1985).

Since N.S.W. was the first state to transfer basic nurse education to the tertiary sector, the other states have had time to evaluate the N.S.W. experience and therefore the structure of their tertiary nursing courses may be quite different as regards the comprehensive course. Also, industrial disputes led to the Victorian government promising to maintain separate general and psychiatric registers for nurses. By highlighting some of the problems in N.S.W., this study may be able to help make other states aware of the problems in N.S.W and thus to take positive steps to solve them.

4.8 Recommendations Arising from the Study

4.8.1 Recommendations to Heads of Nursing Departments

a) **The facilitating effect of the clinicians in the clinical facilities be enhanced through continuing liaison.**

b) **The constraining effect of the physical characteristics of the clinical facilities be diminished by whatever possible means.**

c) **The constraint of the system of care be diminished by whatever possible means.**

4.8.2 Recommendations For Further Research

It is recommended that further research be done to:

a) **continue the development of facilitating factor theory as proposed by Roberts herein.**

b) **continue the development of frame factor theory.**

c) **determine the most educationally sound ratios for clinical teaching.**

d) **apply the Roberts Scales to other health care disciplines.**

4.9 Significance of the Study

This study has extended the theory of frame factors to explore facilitating factors and to postulate facilitating factor theory and distal

influences. Thus, the concept of decision-making space has been extended, as well. The findings of this study highlighted the factors which facilitate nurse-academics' instructional planning decisions, namely colleagues. These findings are significant because it is just as important to encourage the factors which promote efficiency as it is to avoid the pitfalls.

This study also was the first to explore influences on instructional planning decisions in the clinical facilities in Australia. Thus, elucidation of the influence of the clinical facilities on instructional planning for clinical teaching was a significant contribution to the application of frame factor theory.

This study has made a significant contribution to the understanding of some aspects of the transition of nurse-education to the tertiary education system. It has shown some of the experiences of the nurse-educators in the process of becoming nurse-academics. It contains information of interest concerning the history of nursing education, and has brought out some important issues concerning clinical teaching in the process of transferring nursing courses to the tertiary sector. Other states and territories could enhance the smoothness of their transition by avoiding some of the problems that N.S.W. encountered in the implementation of the basic nursing curriculum.

In joining the mainstream of tertiary education in New South Wales, nursing has taken another step on the journey to professional status. Although a significant milestone on the journey has been passed, the rest of the journey will not necessarily be easy. By documenting the travel diary of nurse-academics on part of that journey, and highlighting the roadblocks and the gateways, this study has contributed to the development of nursing academia in Australia.

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